

SIEMENS

MAMMOMAT 300/3000

SP

Installation

Installation recommendations

External exposure lamp

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General

Scope of this document

The scope of this document is to describe the procedure of installing an external exposure lamp to indicate preparation and exposure on the MAMMOMAT 300/3000.

All components and electrical data are recommendations and Siemens Elema takes no responsibility whatsoever for installation other than described in this document.

Function

MAMMOMAT 300/3000 enables an external connection of a lamp to indicate risk of radiation. The warning lamp lights up under preparation and goes out when the exposure is through.

Limitations

Some MAMMOMAT 300 are not prepared for external exposure lamp (serial number 1006 to 1021).

Verify that the MAMMOMAT in question is equipped with connectors X20, X21 and X22 on the p.c. board D700. *If not, installation will not be possible.*

All MAMMOMAT 3000 are prepared for external exposure lamp.

Tools

Standard tools for installation.

Time required

1h

Installation information

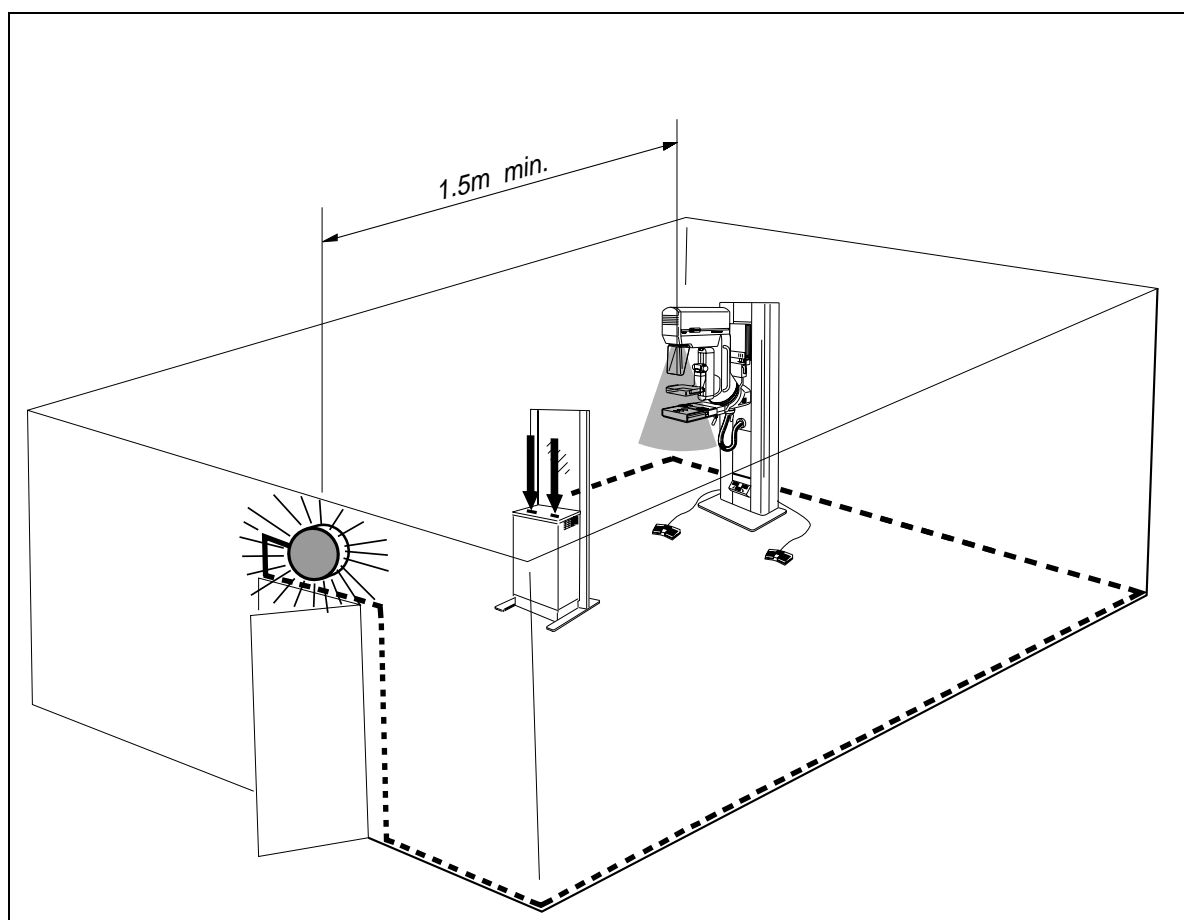


Figure 1. At preparation and exposure the lamp lights.

Installation - M300

Cables and components - M300

Relay: 24VDC rated 5A, UL-CE-CSA, e.g. Omron MK-I/-S series.

Cable between generator and relay:

4 x 0.5mm² shielded, 6A, 300V, max 150nF/km, Ø 7.0 mm, UL-CE-CSA, e.g. Kromberg & Schubert, Schaltflex 321464.

Cable between relay and power supply:

UL-CE-CSA power supply cable, Ø 7.3 mm, e.g. FELLER FSchHARSVT, 3 x 18 AWG.

Diodes: 3 x 1N4004

Connectors: 3 x FASTON 6.3 x 0.8 with insulation.

Fuse: 3.15 AT

Fuseholder: Fulfilling national standards.

Lamp:

AC voltage	Lamp
100VAC	40W
110-120VAC	60W
220 - 280VAC	100W

Lampholder: Fulfilling national standards.

Cable tie: × 1

Strain relieve bushing: × 1

Labels: × 6

Clamp: 1 × 6 mmØ

Ferrite core: × 1

Preparation of cable for M300

Cable according to Figure 2.

Note: Min. dimensions.

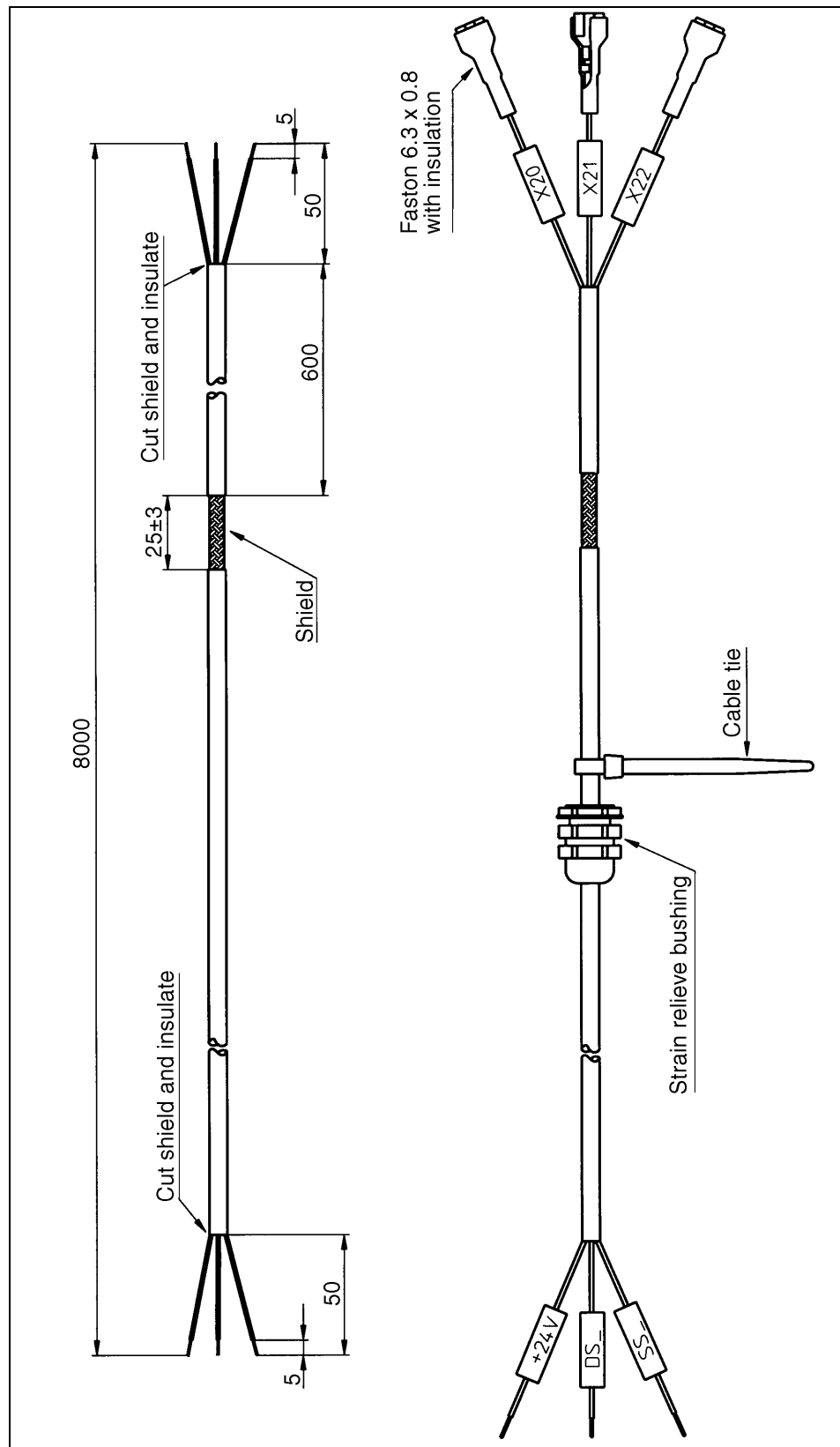


Figure 2.

Removal of covers - M300

- Switch off mains.
- Remove the generator front cover (1/Figure 3).
- Remove the cable outlet cover (2/Figure 3).
- Remove the cable duct covers.

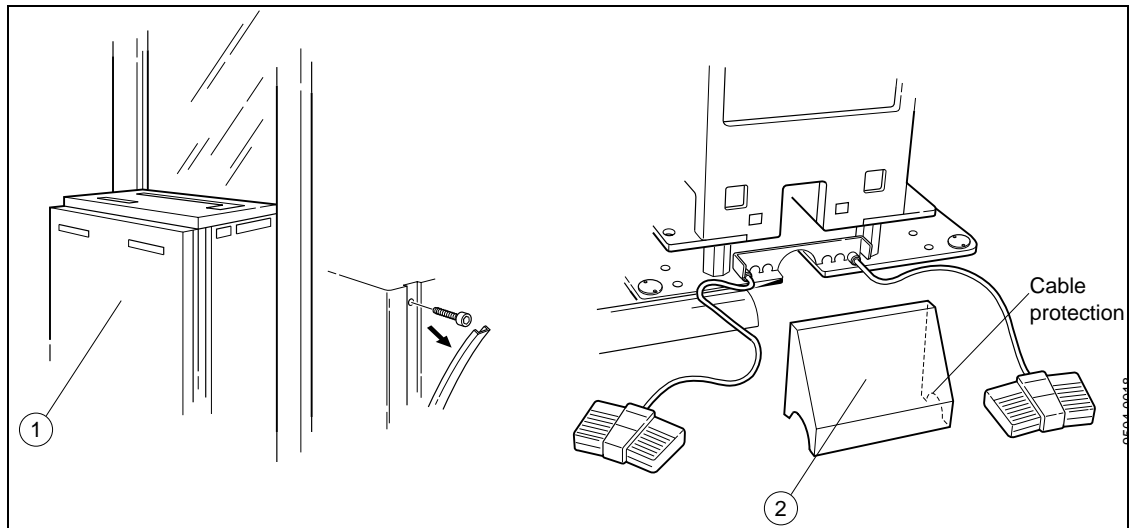


Figure 3.

Connecting and clamping - M300

- Connect the cable conductors marked X20, X21 and X22 to corresponding generator connectors X20, X21 and X22 on the p.c. board D700 according to Figure 4.

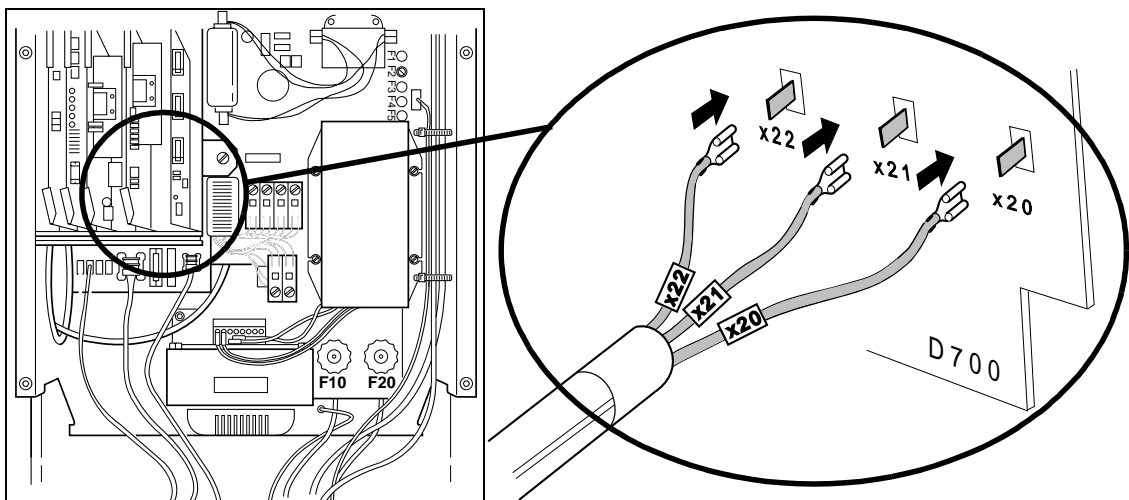


Figure 4.

- Clamp the cable to the generator floor or below the D700 p.c. board, see Figure 5.

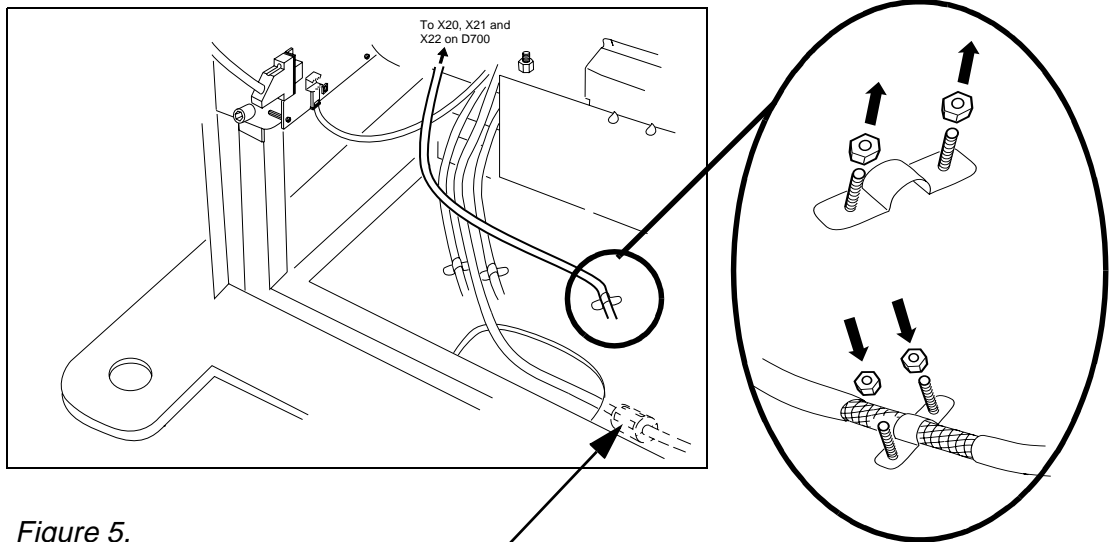


Figure 5.

- Attach a ferrite core to the cable.

Cable placement - M300.

- Lay the cable between generator and stand, in one of the outer cable duct compartments, see Figure 6.

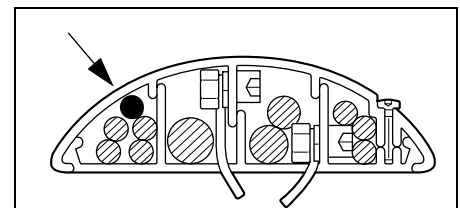


Figure 6.

Strain relieving - M300

The cable for external exposure lamp shall be strain relieved at the stand, see Figures 7 and 8.

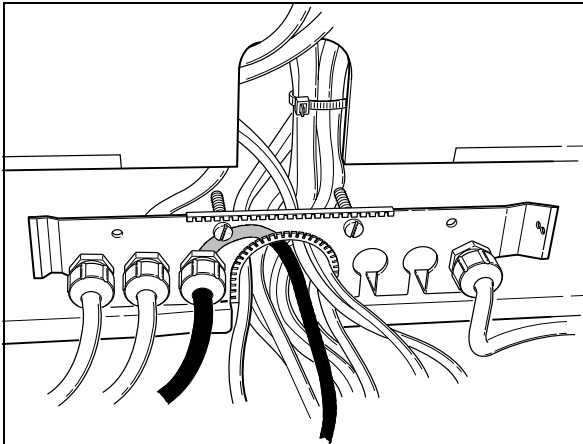


Figure 7.

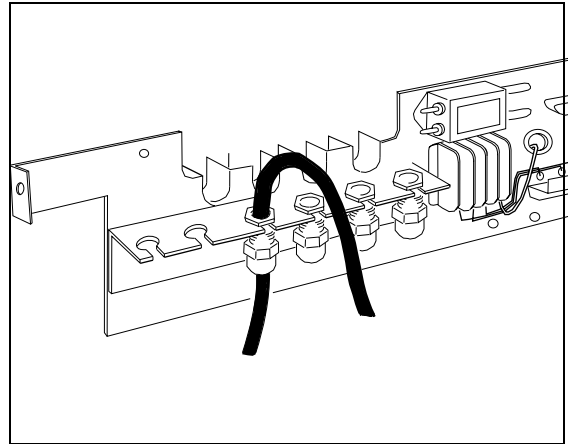


Figure 8. CE-version

- Place the strain relief bushing and cable tie in position.
- Tighten the cable tie, cut off the remains and push the bushing over the cable tie to achieve proper relieving.
- Place the bushing in the notch and tighten the bushing.

Connecting the relay - M300

The cable shall be connected to a relay according to Figure 9.

Note! Do not use power from the generator.

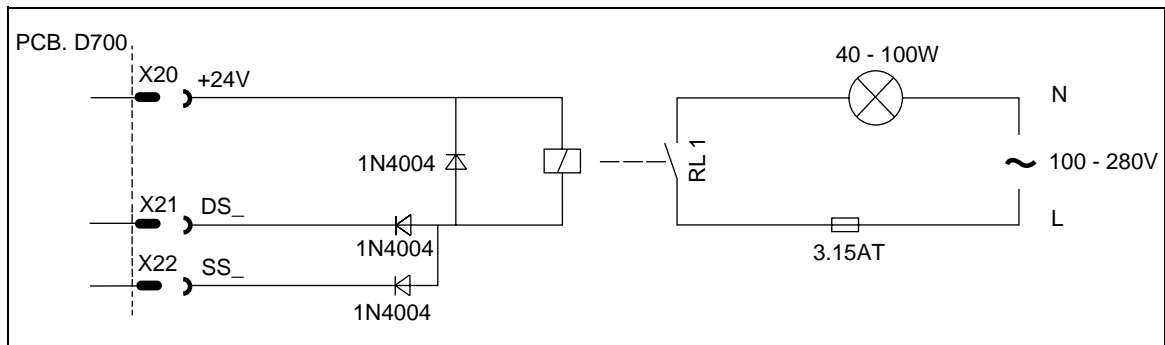


Figure 9.

- Connect the lamp holder with fuse to the relay.

Final procedure - M300

- Close the generator box, the cable outlet cover and the cable duct covers.
- Switch on mains.
- Connect power to the lamp and perform a test exposure and check that the lamp lights under preparation as well as under exposure.



Note! The lamp blinks briefly between preparation and exposure.

Installation - M3000

Cables and components - M3000

Cable between generator and power supply:

UL-CE-CSA power supply cable, Ø 7.3 mm, e.g. FELLER
FSchHARSVT, 3 x 18 AWG.

Connector: AMP Metrimate part No. 207360-1

Fuse: 3.15 AT
Primary fuse per transformer specification

Fuseholder: Fulfilling national standards.

Transformer: 24 VAC, 25 VA, The transformer shall provide safety isolation from
the mains and fulfill national standards.

Lamp: 24 V, 25 W max

Lampholder: Fulfilling national standards.

Cable tie: × 1

Strain relieve bushing: × 1

Labels: × 1

Clamp: 1 × 6 mmØ

Ferrite core: × 1

Preparation of cable for M3000

Cable according to Figure 10.

Note: Min. dimensions.

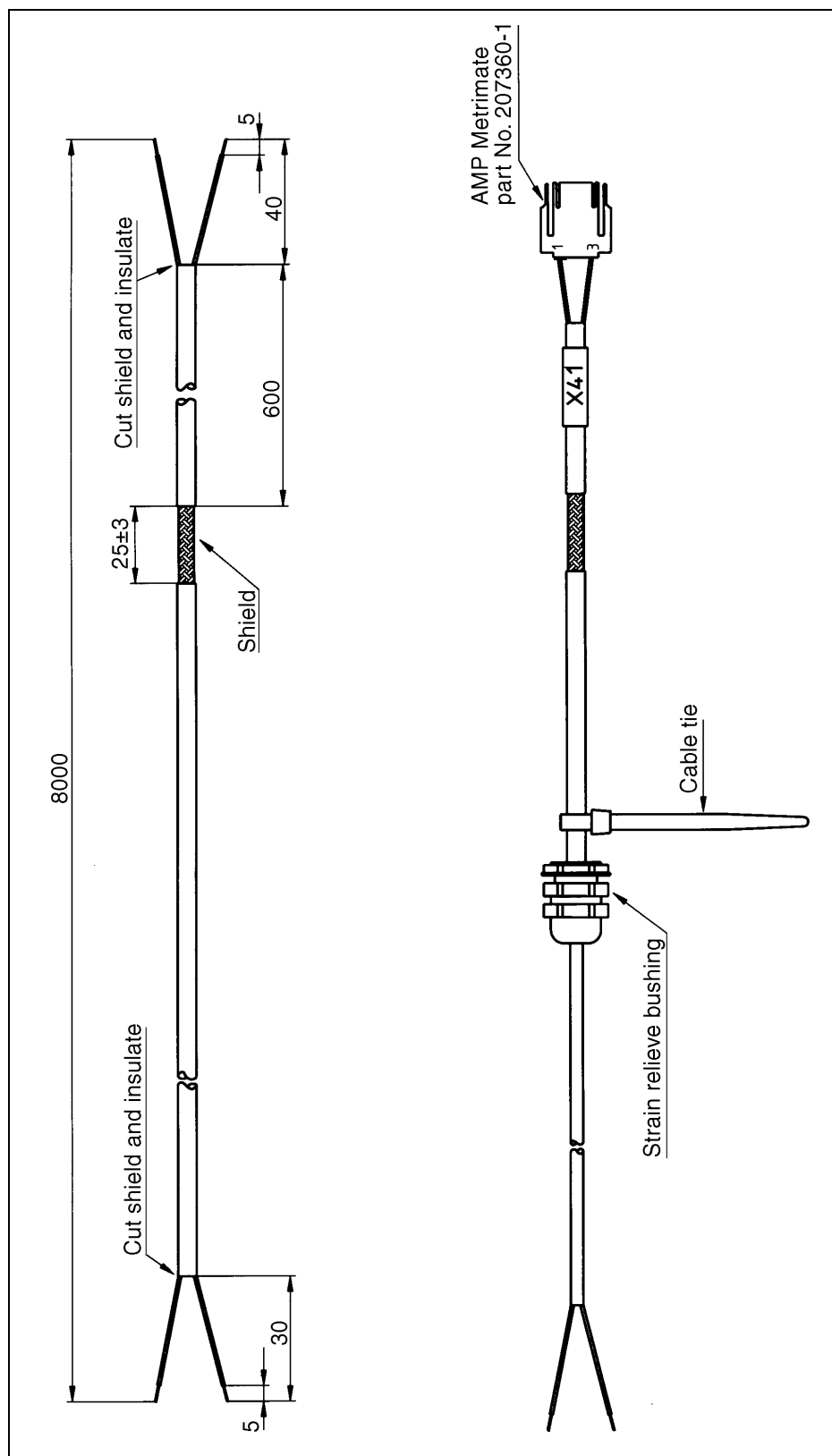


Figure 10.

Removal of covers - M3000

- Switch off mains.
- Remove the generator front cover (1/Figure 11).
- Remove the cable outlet cover (2/Figure 11).
- Remove the cable duct covers.

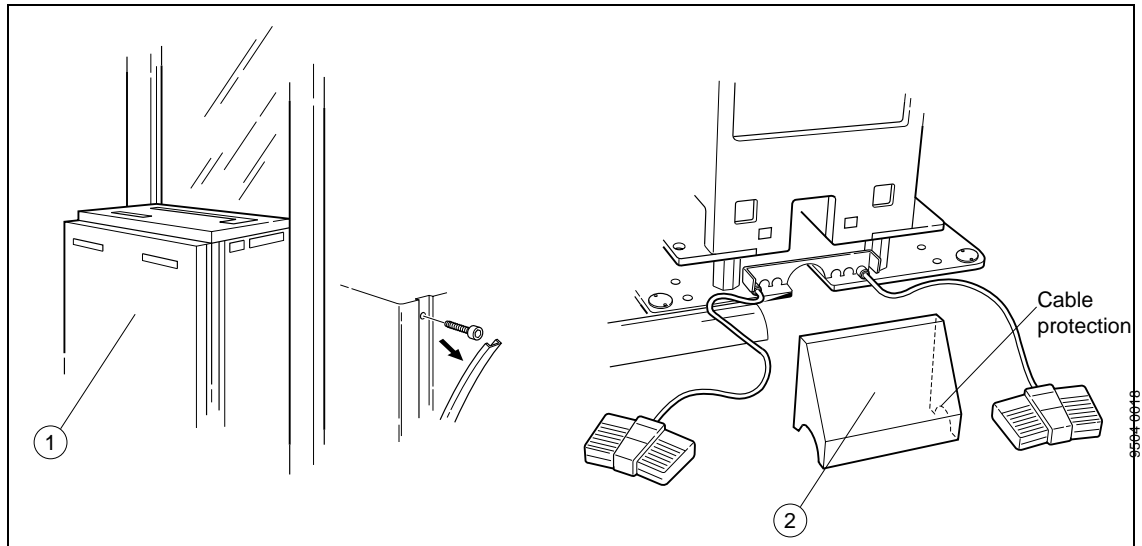


Figure 11.

Connection and clamping - M3000.

- Connect the connector to X41 on the D706 p.c. board, see Figure 12.

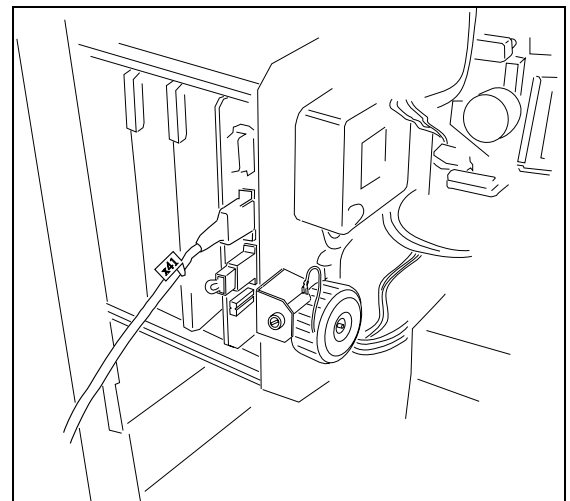


Figure 12.

- Clamp the cable to the generator floor or below the D700 p.c. board, see Figure 13.

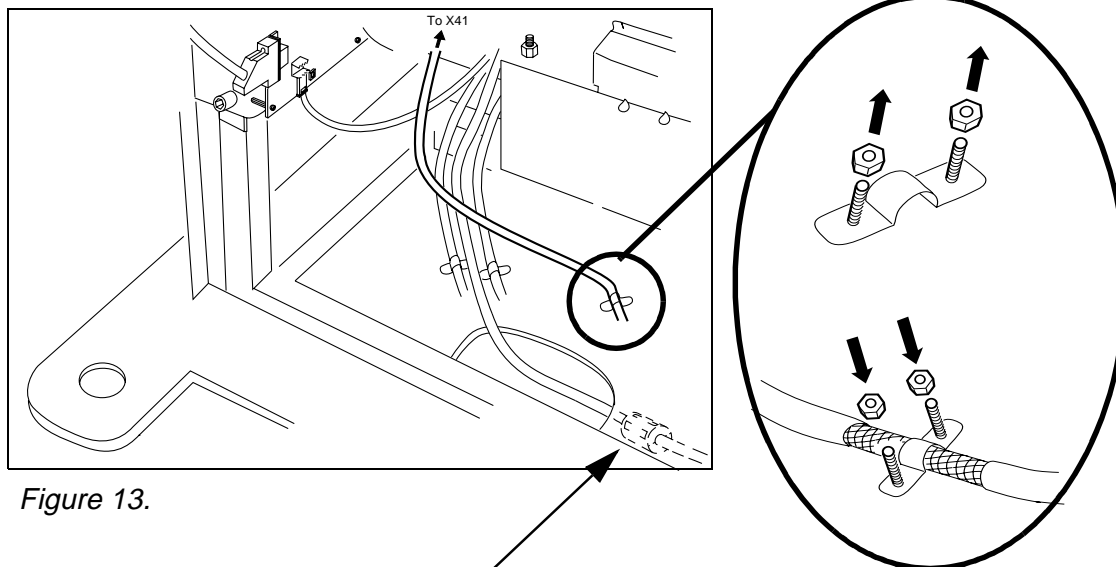


Figure 13.

- Attach a ferrite core to the cable.

Cable laying - M3000.

- Lay the cable between generator and stand, in one of the outer cable duct compartments, see Figure 14.

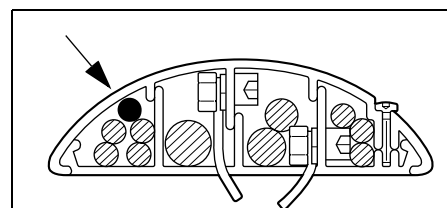


Figure14.

Strain relieving - M3000

The cable for external exposure lamp shall be strain relieved at the stand, see Figures 15 and 16.

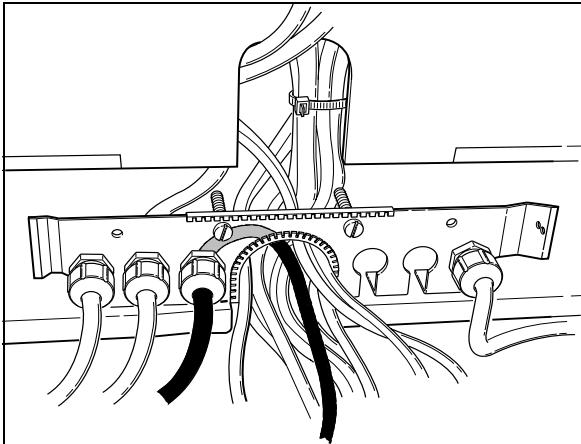


Figure 15.

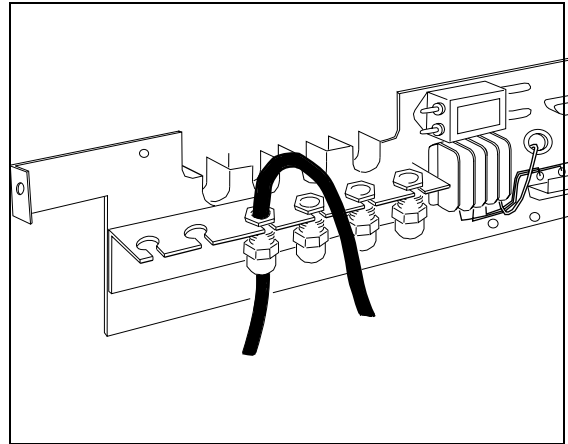


Figure 16. CE-version

- Place the strain relief bushing and cable tie in position.
- Tighten the cable tie, cut off the remains and push the bushing over the cable tie to achieve proper relieving.
- Place the bushing in the notch and tighten the bushing.

Connecting the lamp - M3000

- Connect cable to the lamp holder in series with the power supply according to Figure 17.

Note! Do not use power from the generator.

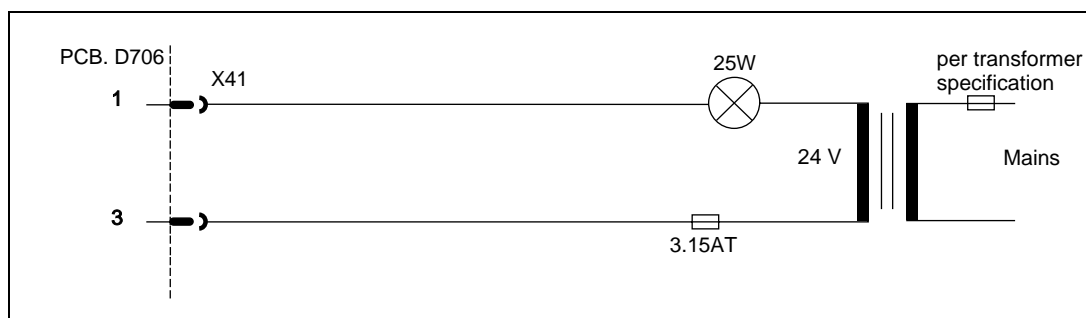


Figure 17.

Final procedure - M3000

- Close the generator box, the cable outlet cover and the cable duct covers.
- Switch on mains.
- Perform a test exposure and check that the lamp lights under preparation as well as under exposure.



Note! The lamp blinks briefly between preparation and exposure.
The lamp blinks at system turn off.